ADULT AND PEDIATRIC TRAUMA

PRIORITIES

Scene Safety/Survey
ABC's
Primary Survey
Extrication
"Secondary Survey" Enroute

LOAD AND GO CRITERIA

FIELD ASSESSMENT/TREATMENT INDICATORS:

Any trauma patient with one or more of the following conditions requires expeditious packaging and transportation to the closest appropriate trauma center: **Anytime the patient's airway cannot be adequately secured, transport to the closest appropriate receiving hospital.**

I. **RESPIRATORY COMPROMISE:**
- a . Airway obstruction unrelieved by mechanical methods (e.g. jaw thrust, suction, forceps)
- b. Conditions resulting in possible inadequate breathing
  1. open chest wound (sucking chest wound)
  2. flail chest
  3. hemo/pneumothorax, simple or tension
  4. blunt chest injury
- c. Respiratory arrest

II. **CIRCULATORY COMPROMISE*:***
- a. Traumatic cardiopulmonary arrest
- 2. Shock
  1. hemorrhagic
  2. spinal
  3. myocardial contusion
  4. pericardial tamponade
- c. Absence of peripheral pulses
- 4. Chest contusion with arrythmia and/or hemodynamic instability

III. DECREASED LEVEL OF CONSCIOUSNESS*:*

Head injury with decreased level of consciousness and/or Glasgow Coma Score <13

IV. AXIAL (SPINAL) AND SOFT TISSUE TRAUMA:
- a. Tender and distended abdomen
- b. Obvious pelvis instability
- c. Bilateral femur fracture
- d. Any obvious long bone fracture which results in absent distal pulses
- e. Limb amputations (proximal to wrist and ankle)

If in the EMT-P' judgement, the patient has been involved in a trauma incident, which because of a high energy exchange, causes the EMT-P to be highly suspicious that the patient has the potential to be severely injured, the patient should be entered into the trauma system

PARAMEDIC SUPPORT PRIOR TO TRAUMA CENTER/BASE HOSPITAL CONTACT:

1. **Scene Survey**
   a. secure scene safety
   ***b. determine mechanism of injury**
   ***c. determine number of victims**

2. **Assess and maintain airway with in-line axial stabilization**
   a. chin lift/jaw thrust
   b. clear airway of foreign bodies
   c. BVM with supplemental oxygen as clinically indicated
   d. oro/nasopharyngeal airway as needed
   e. endotracheal, nasotracheal intubation (adults only) or percutaneous cricothyrotomy as indicated to protect and maintain airway

3. **Ventilatory Support**
   a. expose chest and neck
   ***b. determine rate and effort of respirations**
   c. inspect and palpate chest
   d. assess neck for tracheal deviation or JVD
   e. auscultate chest
   f. seal open chest wounds
   g. alleviate tension pneumothorax (needle thoracostomy)

4. **Circulatory Control**
   a. control external hemorrhage

5. **Evaluate perfusion**
   ***a. assess pulse rate and description**
   ***b. assess capillary refill - immediate, delayed, none**
   ***c. assess skin color - normal, pale, ashen, cyanotic, flushed**

6. **Assess neurologic status per Glasgow Coma Scale**
   ***a. eye opening - none, to pain, to voice, spontaneous**
   ***b. best verbal response - none, incomprehensive, inappropriate, confused, oriented**
   ***c. motor response - none, extension, flexion, withdrawal, purposeful, obedient**

7. ***Determine Chief Complaint**

***TRAUMA CENTER/BASE HOSPITAL CONTACT ASSESSMENT**

LOAD AND GO PATIENTS

1. Transportation to closest appropriate facility or trauma center
2. Once enroute initiate large bore IV/IO wide open for B/P <90mmHg (absence of palpable peripheral pulses), 300ml/hr for B/P >90mmHg (palpable. peripheral pulses administer 20cc/kg NS boluses to maintain peripheral pulses
3. Contact destination Trauma Center if applicable
4. Cardiac Monitor
5. Initiate second large bore, IV/IO wide open for B/P <90mmHg
6. **Manage special considerations**
7. Complete secondary survey to include patient response to therapy
8. Repeat vital signs

ALL OTHER TRAUMA PATIENTS

1. Complete detailed exam
2. Manage special considerations
3. Begin transport to closest appropriate facility
4. Vascular access if indicated
5. Contact Base Hospital/Receiving facility
6. Repeat vital signs

SPECIAL CONSIDERATIONS PRIOR TO CONTACT

HEAD AND NECK TRAUMA:

1. Intubate patients with failing respirations or unmanageable airway while maintaining in-line axial stabilization. Use when indicated prophylactic lidocaine 1.5mg/kg for head injured patient prior to intubation to prevent increased ICP
2. Observe the oropharynx for teeth and dentures
3. Frequently suction airway p.r.n. to prevent aspiration of blood and fluids
4. Observe nose and ear for drainage
5. Avoid nasotracheal intubation if severe midface injuries present, not to be done on pediatric patients
6. Whenever possible protect the injured eye with a rigid dressing, cup, or eye shield. Do not attempt to replace the partially torn globe - stabilize it in place with a sterile saline soaked gauze

CHEST TRAUMA:

1. **Impaled object**:
   a. Attempt to stabilize the object
   b. Do not remove object unless CPR is absolutely impossible.
2. **Flail chest**:
   a. Stabilize chest wall as required for patient comfort
   b. Be prepared to support ventilations with appropriate airway adjuncts
   c. Observe for paradoxical movement during respirations
   d. Observe for progression to tension pneumothorax
3. **Tension pneumothorax**:
   a. Observe for tracheal shift, distended neck veins, progressively worsening dyspnea/cyanosis, decreased/diminished or absent breath sounds, shock
   b. Perform needle thoracostomy (Reference #4023)
4. **Cardiac tamponade/contusion**:
   a. May present with blunt chest wall trauma evidenced by the presence of rib fractures, ecchymosis or mechanism of injury
   b. Observe for life-threatening dysrhythmias and/or shock

ABDOMINAL TRAUMA:

1. **Blunt trauma**:
   a. May present with rigidity, ecchymosis, pain, shock
2. **Impaled object:**
   Attempt to stabilize the object. Do not remove unless object interferes with CPR (consult Trauma Center/ Base Hospital Physician if time allows)
3. **Eviscerating trauma**:
   a. Cover eviscerated organs with sterile saline soaked gauze
   b. Do not replace organs into abdominal cavity
4. **Genital injury:**
   a. Apply direct pressure to actively bleeding sites
   b. Cover genitals with sterile saline soaked gauze
   c. Treat amputated parts per amputations (below)

EXTREMITY TRAUMA:

1. **Open or closed fractures/dislocations**:
   a. Determine baseline sensory, motor, and vascular function/deficits prior to skeletal stabilization/splinting.
   b. Return extremity to anatomic position, if possible, as resistance/pain allows
   c. Apply splints and recheck neurovascular status after each manipulation and periodically enroute
   d. Control bleeding with direct pressure
   e. Cover open fractures with sterile saline soaked gauze
   f. Splint all dislocations in position found and transport as soon as possible
   g. Morphine Sulfate 2-10mg/dose titrated to pain relief. Obtain B/P prior to and after administration

2. Amputations

   a. If partial amputation, splint in anatomic position and elevate the extremity**.**
   b**.** If a part is completely amputated, place the amputated part in sterile, dry, container or bag. Tie or seal off the bag. Place in a second container or bag, if possible, and tie or seal off. Place on ice, if available. DO NOT place part directly on ice or in water. Elevate extremity involved and dress in dry gauze.

BASE HOSPITAL MAY ORDER:

****1. Establish additional IV/IO lines enroute**
****2. Treat special considerations as clinically indicated per established protocols.**
****3. Morphine Sulfate 2-10mg titrated for pain, and repeat vitals**
****4. In isolated extremity trauma, may repeat Morphine Sulfate 2-10mg IV**

*****May be done during radio communication failure***